

How To Setup - React-Django Student Portal

This guide provides step-by-step instructions to set up and run the React-Django Student Portal application.

Prerequisites

- Node.js (v14 or higher)
- npm (v6 or higher)
- Python (v3.8 or higher)
- pip (latest version)
- Git

Quick Setup Guide

Step 1: Clone the Repository

```
# Clone the repository
git clone https://github.com/kunalbhayana/React_Django_Tutorial.git

# Navigate to the project directory
cd React_Django_Tutorial
```

Step 2: Backend Setup

```
# Navigate to the backend directory
cd backend

# Create a virtual environment
python -m venv venv

# Activate the virtual environment
# On Windows
venv\Scripts\activate
# On macOS/Linux
source venv/bin/activate

# Install dependencies
pip install -r requirements.txt

# Apply migrations
python manage.py migrate
```

```
# Create a superuser (optional)  
python manage.py createsuperuser
```

Step 3: Frontend Setup

```
# Navigate to the frontend directory  
cd ../frontend
```

```
# Install dependencies  
npm install
```

Step 4: Run the Application

Start the Backend Server:

```
# Make sure you're in the backend directory and the virtual environment is activated  
cd backend  
source venv/bin/activate # On macOS/Linux  
  
# Start the Django server on port 8001  
python manage.py runserver 8001
```

Start the Frontend Server:

```
# In a new terminal, navigate to the frontend directory  
cd frontend  
  
# Start the React development server  
npm start
```

Access the Application

- Frontend: <http://localhost:3000>
- Backend API: <http://localhost:8001/api/>
- Django Admin: <http://localhost:8001/admin/>

Features

- User registration with form validation
- Navigation between Home, Sign Up, About Us, and Student Dashboard pages
- Clean, responsive UI with standard CSS styling
- Backend API for user registration

Troubleshooting

1. **Port already in use:** If port 3000 is already in use, React will ask to use another port. Type 'Y' to accept.
2. **Backend connection issues:** Ensure the backend is running on port 8001 and CORS is properly configured.
3. **Module not found errors:** Run `npm install` again in the frontend directory to ensure all dependencies are installed.
4. **Database errors:** Make sure migrations are applied with `python manage.py migrate`.

Need Help?

If you encounter any issues, please: 1. Check the console for error messages 2. Ensure all prerequisites are installed 3. Verify that you've followed all steps in order 4. Contact the instructor for further assistance